Mini-Golf and Tessellations

Choose from one of the projects below

1. Mini-golf

Design a mini-golf course with 6 holes. Draw your holes AND the path the ball will take in order to make a hole-in-one. Use a ruler to make accurate pictures. EACH HOLE MUST BE QUITE DIFFERENT!

+Holes 1-3 must include a shot where 1 bank shot/reflection is needed\*

+Holes 4-5 must include a shot where 2 bank shots/reflections are needed

+Hole 6 can be whatever you like.

\*Read the mini-golf link found online to learn how to draw a hole with 1-2 bank shots

Rubric:

Holes 1-3 including correct path of ball 9 points

Holes 4-5 including correct path of ball 6 points

Hole 6 2 points

Neat 3 points

2. Translation Tessellations on the computer

(Only 5 people will be allowed to work on the computer at one time.)

Follow the directions found on the wikispace.

A. Create a tessellation using Paint. The picture created MUST include 3 cuts and/or look like a real-life object.

+Tessellate the shape 16 times

+ Use at least 3 different colors

B. Do the same thing by hand. Tessellate the object 9 times. Use at least two different colors.

+ Read pg 1 on <http://library.thinkquest.org/16661/escher/tessellations.1.html>

(The easiest thing to do is to make a rectangle, cut out the pieces, and then trace them multiple times onto a sheet of paper.)

(If you like doing them by hand, you may create two by hand instead of using the computer.)

Rubric:

Part A: 8 points

3 points for shape

3 points for tessellating 16 times

2 points for color

Part B: 12 points

4 points for shape

4 points for tessellating 9 times

2 points for color

2 points for neatness

3. Rotational Tessellations

Read <http://library.thinkquest.org/16661/escher/tessellations.1.html> or <http://library.thinkquest.org/16661/escher/tessellations.1.html> and recreate one of the tessellations

\*Note, it may be easier to create a separate hexagon, figure out the shape, and trace it. (Do NOT trace from the computer screen. That will result in a 0.)

Use the arrow directions on <http://library.thinkquest.org/16661/escher/tessellations.hands-on.1.s.html#> or <http://library.thinkquest.org/16661/escher/tessellations.hands-on.4.m.html> to help you.

Rubric:

Figure looks similar to Escher’s work 5 points

Rotation is correct 5 points

There are 16 complete figures 5 points

Used 2-3 colors (depending on picture)2 points

Neatness 3 points